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JERRY.SHORMA@HP.COM

ipa.mail@hp.com

laura.m.clark@hp.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KURT E. SPEARS and DOUGLAS L. FRANZ

Appeal 2009-013731
Application 09/769,721
Technology Center 2600

Before ALLEN R. MacDONALD, ROBERT E. NAPPI, and
JOHN A. JEFFERY *Administrative Patent Judges*.

Per Curiam.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the rejection of claims 1 and 4 through 6; claims 2, 3, 7, and 8 have been canceled; and claim 9 has been allowed.¹

We reverse.

INVENTION

The invention is directed to a photosensor assembly that has charge transfer gates which are segmented into sections and are used to transfer charges from photosensors to shift registers. See page 3 of Appellants' Specification and Figures 1A-1C (item 104 charge transfer gate, item 102 shift register), and Figures 3A and 3B (item 304 charge transfer gate, item 308 shift register). Claim 1 is representative of the invention and reproduced below:

1. A method of scanning, comprising:

exposing, an array of photosensors, to light, a first time;
activating a particular section of a charge transfer gate, where the charge transfer gate has a plurality of sections, each section individually controllable, and fewer than all the sections are activated;

transferring charges, from a contiguous block of the photosensors, through the particular section of the charge transfer gate, to a charge shift register;

exposing, the array of photosensors, to light, a second time;

transferring charges, from the contiguous block of photosensors, through the particular section of the charge transfer gate, to the charge shift register, so that charges from the contiguous block of photosensors, from more than one exposure, are interleaved in the charge shift register.

¹ See Brief page 2, and Answer pages 2 and 7.

REFERENCES

Yu	US 5,345,319	Sep. 06, 1994
Yonemoto	US 6,441,851 B1	Aug. 27, 2002
Hynecek	US 6,459,077 B1	Oct. 01, 2002

REJECTIONS AT ISSUE

The Examiner has rejected claim 1 under 35 U.S.C. § 102(e) as anticipated by Yonemoto. Answer 3-4².

The Examiner has rejected claim 5 under 35 U.S.C. § 102(b) as anticipated by Yu. Answer 4-5.

The Examiner has rejected claim 4 under 35 U.S.C. § 103(a) as unpatentable over Yonemoto in view of Hynecek. Answer 6.

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as unpatentable over Yu in view of Hynecek. Answer 6.

ISSUES

Claim 1

Appellants argue on pages 4 and 5 of the Brief³ and pages 1 and 2 of the Reply Brief that the Examiner's rejection of claim 1 is in error. Appellants' arguments present us with the issue did the Examiner err in finding Yonemoto teaches activating a particular section of a charge transfer gate as recited in claim 1?

² Throughout this opinion we refer to the Examiner's Answer mailed on April 23, 2007.

³ Throughout this opinion we refer to Appellants' Brief dated January 22, 2007, and Reply Brief dated May 29, 2007.

Claim 5

Appellants argue on pages 5 and 6 of the Brief that the Examiner's rejection of claim 5 is in error. Appellants' arguments present us with the issue did the Examiner error in finding that Yu teaches interleaving charges from contiguous blocks of one or more photosensors into a shift register as claimed?

ANALYSIS

Claims 1 and 4

We have reviewed Appellants' arguments in the Brief, and we concur with Appellants' conclusion that the Examiner erred in finding Yonemoto teaches activating a particular section of a charge transfer gate as claimed. Claim 1 recites that activating a particular section of a charge transfer gate, where fewer than all sections are activated and transferring charge from a block of photosensors through the particular section of the charge transfer gate to a shift register. The Examiner finds the activation by signals V2a and V2b which causes transfer of charge to the shift register (vertical CCD 2) meets the claimed section of a charge transfer device. Answer 7. We disagree with the Examiner's finding, and concur with the Appellants' characterization of Yonemoto on page 2 of the Reply Brief. Thus, we concur with Appellants' reasoning that if one were to consider the sections of the charge transfer gate activated by signals V2a and V2b, all of the gates would be activated, and as such the claim limitation of the section being less than all gates is not met. Accordingly, Appellants have persuaded us of error in the Examiner's rejection and we will not sustain the Examiner's rejection of claim 1.

The Examiner's obviousness rejection of dependent claim 4 similarly relies upon Yonemoto to teach the limitations of independent claim 1. Thus,

we will not sustain the Examiner's rejection of claim 4 for the same reasons as claim 1.

Claim 5

We have reviewed Appellants' arguments in the Brief, and we concur with Appellants' conclusion that the Examiner erred in finding Yu teaches interleaving charges from contiguous blocks of one or more photosensors as claimed. The Examiner, in construing claim 5 states: "[n]othing in the claim limits a charge shift register to have only one shift register." Answer 8. We disagree and consider this to be an unreasonable interpretation of the claim. The claim on its face says "a shift register" which implies only one. This is consistent with Appellants' Specification and the teachings of Yu, *see* for example col. 3, ll. 34-35, which discusses a pair of shift registers item 10, not a shift register containing an upper and lower shift register as asserted by the Examiner on page 6 of the Answer. Thus, we find no support for the Examiner's claim interpretation.

We recognize that the indefinite article "a" or "an" means "one or more" in open-ended claims containing the transitional phrase "comprising." *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000). But where, as here, "the claim language and specification indicate that 'a' means one and only one, it is appropriate to construe it as such even in the context of an open-ended 'comprising' claim." *Harari v. Lee*, 656 F.3d 1331, 1341 (Fed. Cir. 2011).

Using the claim interpretation of a shift register meaning one shift register, the Examiner has not shown that Yu teaches interleaving charge from contiguous blocks of one or more photosensors into a shift register.

Accordingly, we will not sustain the Examiner's rejection of independent claim 5.

The Examiner's obviousness rejection of dependent claim 6 similarly relies upon Yu to teach the limitations of independent claim 5. Thus we will not sustain the Examiner's rejection of claim 6 for the same reasons as claim 5.

ORDER

The decision of the Examiner to reject claims 1 and 4 through 6 is reversed.

REVERSED

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